

IN THE CLAIMS:

Please cancel claim 59 without prejudice to or disclaimer of the subject matter recited therein. Please also amend claims 1-28, 30-57, and 60-73, and add new claim 74, as follows.

1. (Currently Amended) A cleaning apparatus, comprising:
a housing;
a supply reel secured within the housing;
a take-up reel secured within the housing;
a cleaning ribbon extending from the supply reel to the take-up reel, the cleaning ribbon being configured to form a particle trap; and
a rotatable brush secured within the housing,
wherein ~~a particle trap is formed by a configuration of the cleaning ribbon, and~~ the rotatable brush is disposed on a forward side of the particle trap, and sweeps debris into the particle trap upon rotation of the rotatable brush.

2. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 1, further comprising a handle attached to the housing for manually moving the housing ~~apparatus~~ along a surface to be cleaned.

3. (Currently Amended) A cleaning apparatus, comprising:
a housing; and
a cartridge detachably secured within the housing, the cartridge including:
a supply reel;
a take-up reel;
a cleaning ribbon extending from the supply reel to the take-up reel, the cleaning ribbon being configured to form a particle trap and having a cleaning surface substantially parallel to a surface to be cleaned; and
a rotatable brush disposed on a forward side of the cleaning surface,

wherein ~~a particle trap is formed by a configuration of the cleaning ribbon, and~~
the rotatable brush sweeps particles into the particle trap upon rotation of the rotatable
brush.

4. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the housing includes a panel that is removable for providing access to the cartridge.

5. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the cleaning ribbon is comprised of an electret material that electrostatically attracts and
retains particles ~~debris~~.

6. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the cleaning ribbon is comprised of an adhesive material.

7. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the cleaning ribbon is saturated with a cleaning agent.

8. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the cleaning ribbon is a textured cloth.

9. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the cleaning ribbon comprises a combination of at least two of an electret material, an
adhesive material, a material saturated with a cleaning agent, and a textured cloth.

10. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3,
wherein the cleaning ribbon is ~~wound~~ in a folded state on the supply reel ~~in such a way that the~~
~~width of~~ to reduce its width on the supply reel.

11. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 10, wherein the width of the supply reel is ~~reduced by folding~~ less than the width of the cleaning ribbon ~~at least once in a lengthwise direction in an unfolded state.~~

12. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, wherein the cleaning ribbon is folded before being collected by the take-up reel ~~in such a way that the width of~~ to reduce its width on the take-up reel ~~is reduced.~~

13. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 12, wherein the width of the take-up reel is ~~reduced by folding~~ less than the width of the cleaning ribbon ~~at least once in a lengthwise direction in an unfolded state.~~

14. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, wherein the cleaning ribbon is ~~wound in a folded state on the supply reel in such a way that the width of~~ to reduce its width on the supply reel ~~is reduced~~ and the cleaning ribbon is folded before being collected by the take-up reel ~~in such a way that the width of~~ to reduce its width on the take-up reel ~~is reduced.~~

15. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, wherein the supply and take-up reels are mechanically driven.

16. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 15, wherein the supply and take-up reels are driven at a rate different than the rate at which the ~~housing cleaning apparatus~~ is advanced along the surface to be cleaned.

17. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, wherein the rotatable brush comprises a plurality of bristles.

18. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, wherein the rotatable brush comprises a plurality of flexible blades.

19. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, wherein the rotatable brush is mechanically driven.

20. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 19, wherein the rotatable brush is always driven in the same rotational direction, regardless of the direction of travel of the housing cleaning ~~apparatus~~.

21. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 19, further comprising a plurality of rotatable wheels for advancing the housing cleaning ~~apparatus~~ along the surface to be cleaned, wherein the rotatable brush has a common axis with at least one of the plurality of rotatable wheels.

22. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 19, wherein the rotatable brush is driven at a rate different than the rate at which the housing cleaning ~~apparatus~~ is advanced along the surface to be cleaned.

23. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 22, further comprising a plurality of wheels for advancing the housing cleaning ~~apparatus~~ along the surface to be cleaned and a belt and pulley system for rotating the rotatable brush, wherein the belt and pulley system utilizes the rotation of at least one of the plurality of wheels to rotate the rotatable brush.

24. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 22, further comprising a plurality of wheels for advancing the housing cleaning ~~apparatus~~ along the surface to be cleaned and a plurality of gears for rotating the rotatable brush, wherein the plurality of gears utilizes the rotation of at least one of the plurality of wheels to rotate the rotatable brush.

25. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 3, further comprising a vacuum unit for supplying a suction within the housing.

26. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 25, wherein the suction within the housing removes particles ~~debris~~ from the particle trap.

27. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 25, wherein the suction within the housing is applied to the portion of the cleaning ribbon that creates the cleaning surface on a side of the cleaning ribbon opposite the surface to be cleaned.

28. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 25, wherein the suction within the housing is applied to a side of the portion of the cleaning ribbon forming the particle trap, opposite a side on which particles are collected ~~on a side of the cleaning ribbon opposite that side of the cleaning ribbon collecting foreign particles.~~

29. (Original) A cleaning apparatus, comprising:
a housing;
means for advancing the housing along a surface to be cleaned;
a supply reel secured within the housing for dispensing a supply of cleaning ribbon;
a take-up reel secured within the housing for collecting spent cleaning ribbon;
means within the housing for keeping a portion of the cleaning ribbon which extends between the supply reel and the take-up reel substantially parallel to the surface to be cleaned;
means within the housing for trapping debris; and
means secured within the housing for sweeping debris into the debris trapping means.

30. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, wherein the advancing means comprises a handle attached to the housing.

31. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, wherein the advancing means is self-propelled.

32. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 29, wherein the advancing means is autonomous.

33. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 29, wherein the take-up reel collects the cleaning ribbon so that a side of the cleaning ribbon that was in substantial contact with the surface to be cleaned faces the take-up reel.

34. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 29, wherein the means for keeping the portion of the cleaning ribbon which extends between the supply reel and the take-up reel parallel to the surface to be cleaned comprises a guiding system.

35. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 34, wherein the guiding system prevents the cleaning ribbon from moving laterally relative to the housing.

36. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 34, wherein the guiding system comprises a platen.

37. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 36, further comprising means for movably mounting the platen with respect to the housing.

38. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 37, wherein the means for movably mounting the platen with respect to the housing comprises a linkage device.

39. (Currently Amended) ~~A-cleaning~~ The cleaning apparatus according to claim 37, further comprising a manual lever for operating the linkage device.

40. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 37, wherein the means for movably mounting the platen with respect to the housing comprises a motor.

41. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 37, further comprising ~~a sensing~~ sensing means for sensing that the platen must be moved with respect to the housing.

42. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 34, wherein the guiding system comprises a plurality of rollers.

43. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 36 ~~claim 34~~, wherein the guiding system configures the cleaning ribbon such as to wrap the cleaning ribbon over a forward portion of the platen, thereby directing the ribbon rearwardly over the portion of the cleaning ribbon which extends between the supply reel and the take-up reel parallel to the surface to be cleaned.

44. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 43 ~~claim 42~~, wherein the forward portion of the platen comprises an angled member.

45. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, wherein the means for sweeping debris into the debris trapping means comprises a rotatable brush disposed on the forward side of the debris trapping means.

46. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, wherein the means for sweeping debris into the debris trapping means is comprised of a plurality of rotatable brushes disposed on the forward side of the debris trapping means.

47. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, further comprising a mechanical drive system for advancing the cleaning ribbon.

48. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 47, wherein the mechanical drive system comprises a ribbon advancing reel coupled directly to the take-up reel.

49. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 47, wherein the mechanical drive system comprises a foot-pedal operated ratchet mechanism.

50. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 47, wherein the mechanical drive system controls the rate of advancement of the cleaning ribbon relative to the rate at which the housing is advanced along the surface to be cleaned.

51. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 50, further comprising a plurality of wheels for advancing the housing ~~cleaning apparatus~~ along the surface to be cleaned, wherein the mechanical drive system comprises a belt and pulley system which utilizes the rotation of at least one of the plurality of wheels to advance the take-up reel.

52. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 50, further comprising a plurality of wheels for advancing the housing ~~cleaning apparatus~~ along the surface to be cleaned, wherein the mechanical drive system comprises a plurality of gears which utilizes the rotation of at least one of the plurality of wheels to advance the take-up reel.

53. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, further comprising a motor for advancing the take-up reel.

54. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 29, further comprising a vacuum unit for supplying a suction within the housing.

55. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 54, wherein the suction within the housing removes debris from the means for trapping debris ~~particle trap~~.

56. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 54, wherein the suction within the housing is applied to the portion of the cleaning ribbon which extends between the supply reel and the take-up reel and substantially parallel to the surface to be cleaned on a side of the cleaning ribbon opposite the surface to be cleaned.

57. (Currently Amended) ~~A cleaning~~ The cleaning apparatus according to claim 54, wherein the suction within the housing is applied to a side ~~the portion~~ of the means for trapping debris opposite a cleaning ribbon that forms the particle trap on a side opposite the side of the cleaning ribbon that collects debris.

58. (Original) A cartridge for detachable securement within a cleaning apparatus, the cartridge comprising:

- a supply reel;
- a take-up reel;
- a cleaning ribbon extending between the supply reel and the take-up reel, the cleaning ribbon being configured so as to form a particle trap;
- means for sweeping debris into the particle trap; and
- means for detachably securing the cartridge to the cleaning apparatus.

59. (Cancelled)

60. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 58, wherein the sweeping means comprises a rotatable brush.

61. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 58, wherein the sweeping means comprises a plurality of rotating brushes.

62. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 58, wherein the securing means consists of at least one aperture within the cartridge for mating with at least one protrusion within the cleaning apparatus.

63. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 62, wherein the at least one aperture rotates freely about the at least one protrusion.

64. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 62, wherein the at least one aperture rotates in unison with the at least one protrusion.

65. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 58, wherein a portion of the cleaning ribbon positioned between the supply reel and the take-up reel is wider than is wound on the supply reel for reducing the width of the supply reel.

66. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 58, wherein a portion of the cleaning ribbon positioned between the supply reel and the take-up reel is wider than is collected by the take-up reel for reducing the width of the take-up reel.

67. (Currently Amended) A cartridge for detachable securement within a cleaning apparatus, the cartridge comprising:

a supply reel;

a take-up reel;

a cleaning ribbon extending between the supply reel and the take-up reel, with a length of the cleaning ribbon positioned between the supply reel and the take-up reel disposed for cleaning a surface to be cleaned, when in use, and with wherein the cleaning ribbon is configured to create a particle trap the cleaning ribbon being configured to form a particle trap between the length of the cleaning ribbon for cleaning the surface to be cleaned and the take-up reel, before the cleaning ribbon is collected by the take-up reel; and

means for detachably securing the cartridge to the cleaning apparatus.

68. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 67, wherein the securing means comprises at least one aperture within the cartridge for mating with at least one protrusion within the cleaning apparatus.

69. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 68, wherein the at least one aperture rotates freely about the at least one protrusion.

70. (Currently Amended) ~~A cartridge~~ The cartridge according to claim 68, wherein the at least one aperture rotates in unison with the at least one protrusion.

71. (Currently Amended) ~~A cleaning apparatus~~ The cartridge according to claim 67 ~~claim 65~~, wherein a portion of the cleaning ribbon positioned between the supply reel and the take-up reel is wider than ~~is wound on the supply reel for reducing the width of the supply reel.~~

72. (Currently Amended) ~~A cleaning apparatus~~ The cartridge according to claim 67, wherein a portion of the cleaning ribbon positioned between the supply reel and the take-up reel is wider than ~~is collected by the take-up reel for reducing the width of the take-up reel.~~

73. (Currently Amended) ~~A cleaning apparatus~~ The cartridge according to claim 67, wherein the cleaning ribbon is ~~wound on the supply reel for reducing the width of the supply reel, and the cleaning ribbon is collected by the take-up reel for reducing the width of the take-up reel~~ in a folded state on at least one of the supply reel and the take-up reel.

74. (New) The cartridge according to claim 67, wherein the particle trap includes a depression between the portion of the cleaning ribbon for cleaning the surface to be cleaned and the take-up reel.